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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,877	01/05/2001	Kenneth J. Birdwell	MS1-108USC1	4087

22801 7590 11/16/2004

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EXAMINER	
TON, DANG T	

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/755,877	BIRDWELL ET AL.	
	Examiner	Art Unit	
	DANG T TON	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/05/2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13-16,45 and 46* is/are allowed.

6)☒ Claim(s) *1-12 and 17-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-8,20-29,33, and 37-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8,13-22, and 23-31 of U.S. Patent No. 6,172,972. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following :

For claims 1-8,20-29,33, and 37-44, the claims 1-8,13-22, and 23-31 of the patent number 6,172,972 disclose a system/method comprising:

receiving an IP packet having an IP data block and header information;

encoding the IP packet into a variable-length multi-packet transport (MPT) frame having a data frame and header information so that the data frame of the MPT frame comprises the IP packet;

encoding the variable-length MPT frame into a plurality of fixed-length MPT packets, each MPT packet having a data fragment block comprising at least a portion of the MPT frame and associated header information to designate what portion of the MPT frame is contained in the data fragment block, and wherein one of the plurality of MPT packets includes frame error correction information associated with the entire data frame within the variable-length MPT frame ;

wherein the header information of each MPT packet designates whether the data contained in the associated data fragment block is from a starting portion of the MPT frame, an ending portion of the MPT frame, or a middle portion of the MPT frame;

wherein the header information of each MPT packet comprises a one-byte header having a start-of-frame bit which is set if the data contained in the associated data fragment block of the MPT packet comprises the starting portion of the MPT frame and an end-of-frame bit which is set if the data contained in the associated data fragment block of the MPT packet comprises the ending portion of the MPT frame, the start-of-frame and end-of-frame bits both being reset if the data contained in the associated data fragment block of the MPT packet comprises the middle portion of the MPT frame;

wherein the header information of each MPT packet comprises a multi-byte address in an event that the data contained in the associated data fragment block is the starting portion of the MPT frame;

calculating the frame error correction information for the entire data frame within the variable-length MPT frame;

attaching the frame error correction information to only one of the MPT packets;

adding a header including an address and a trailer with MPT packet error correction information to each fixed-length MPT packet to form satellite-transmittable packets;

transmitting the satellite-transmittable packets;

adding a header to a network data packet to form a variable-length multi-packet transport (MPT) frame;

segmenting the MPT frame into a plurality of data fragment blocks; and

adding a header to each data fragment block to form fixed-length MPT packets of a size appropriate for transmission over the distribution system, and
wherein one of the plurality of MPT packets includes frame error correction information associated with the entire network data packet within the variable-length MPT frame;

wherein the header of each MPT packet designates whether the data contained in an associated data fragment block is from a

starting portion of the MPT frame, an ending portion of the MPT frame, or a middle portion of the MPT frame;

wherein the header of each MPT packet comprises a one-byte header having a start-of-frame bit which is set if the data contained in the associated data fragment block of the MPT packet comprises the starting portion of the MPT frame and an end-of-frame bit which is set if the data contained in the associated data fragment block of the MPT packet comprises the ending portion of the MPT frame, the start-of-frame and end-of-frame bits both being reset if the data contained in the associated data fragment block of the MPT packet comprises the middle portion of the MPT frame;

adding padding bits as a trailer to the network data packet to form the MPT frame;

wherein the step of adding a header comprises the step of adding a header which designates what portion of the MPT frame is contained in the data fragment block;

adding an address to a first data fragment block;

calculating error correction information for the MPT packets;

attaching the error correction information to one of the MPT packets;

adding a header including an address and a trailer with error correction information to each fixed-length MPT packet to form satellite-transmittable packets;

transmitting the satellite-transmittable packets over a satellite distribution system;

receiving a plurality of satellite packets, each satellite packet having a data payload;

removing the data payloads from each of the satellite packets, each data payload comprising a fixed-length multi-packet transport (MPT) packet having a data fragment block and associated header information;

using the header information of the MPT packet to arrange the MPT packets into a variable-length MPT frame;

reconstructing the MPT frame from the data fragment blocks of the MPT packets; and

extracting the network data from the reconstructed MPT frame, and

wherein, one of the plurality of MPT packets includes frame error correction information associated with the network data within the variable-length MPT frame;

an encoding unit to encode a network data packet into a plurality of satellite packets, the encoding unit being configured to (1) add a header to the network data packet to form a variable-length multi-packet transport (MPT) frame, (2) segment the MPT frame into a plurality of data fragment blocks, (3) add a header to each data fragment block to form fixed-length MPT packets, (4) add header/trailer information to each MPT packet to form one or more satellite

packets, and (5) include frame error correction information associated with an entire network data packet within one of the data fragment blocks;

a satellite transmission unit coupled to receive the satellite packets from the encoding unit, the satellite transmission unit transmitting the satellite packets over a satellite network;

a receiving unit to receive the satellite packets from the satellite network; and

a decoding unit coupled to the receiving unit to recover the MPT packets from the satellite packets, reconstruct the MPT frame from the MPT packets, and
extract the network data packet from the MPT frame.

means for adding a header to a network data packet to form a variable-length multi-packet transport (MPT) frame;

means for segmenting the MPT frame into a plurality of data fragment blocks;

means for adding a header to each data fragment block to form fixed-length MPT packets of a size appropriate for transmission over the satellite system,

and

means for configuring one of the plurality of MPT packets to includes frame error correction information associated with the entire network data packet within the variable-length MPT frame;

wherein the header for the MPT packets designates what portion of the MPT frame is contained in the data fragment block;

means for adding padding bits as a trailer to the network data packet to form the MPT frame;

means for adding an address to a first data fragment block;

means for calculating the frame error correction information and including the error correction information to one of the MPT packets;

means for adding a header including an address and a trailer with packet error correction information to each MPT packet to form satellite-transmittable packets; and

a receiver to receive multiple satellite packets, individual satellite packets having a data payload comprising a fixed-length multi-packet transport (MPT) packet, each MPT packet having a data fragment block and associated header information;

a device driver coupled to the receiver;

one of the receiver or device driver being configured to remove the MPT packets from the satellite packets and use the header information of the MPT packet to arrange the MPT packets into a variable-length MPT frame, the one of the receiver or device driver being further configured to reconstruct the MPT frame from the data fragment blocks of the MPT packets and extract the network data from the reconstructed MPT frame, and wherein one of the MPT packets includes frame error correction information associated with the entire network data within the variable-length MPT frame.

Note see claims 1-8 and 12-31 of the patent number 6,172,972.

For claims 1-8,20-29,33,and 37-44, Applicant's claims merely broaden the scope of patent number 6,400,681 claims 1-8 and 13-31 by eliminating the terms "and wherein one of the plurality of MPT packets includes frame error correction information associated with the entire data frame within the variable-length MPT frame " from claim 1 of the patent ; "wherein one of the plurality of MPT packets includes frame error correction information associated with the entire network data packet within the variable-length MPT frame " from claim 13 of the patent; "wherein, one of the plurality of MPT packets includes frame error correction information associated with the network data within the variable-length MPT frame " from the claim 23 of the patent ; "and (5) include frame error correction information associated with an entire network data packet within one of the data fragment blocks" from the claim 24 of the patent; "means for configuring one of the plurality of MPT packets to includes frame error correction information associated with the entire network data packet within the variable-length MPT frame " from clam 25 of the patent; and "and wherein one of the MPT packets includes frame error correction information associated with the entire network data within the variable-length MPT frame" from claim 31 of the patent . It has been held that the omission of an element and its function is an

obvious expedient if the remaining elements perform the same function as before. In re karlson, 136 USPQ 184 (CCPA). Also note Ex Parte Raine, 168 USPQ 375 (bd. App. 1969); omission of a reference element whose function is not need would be obvious to one skilled in the art.

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9-12,17-19,30-32, and 34-36 are rejected under 35 U.S.C. 101 because the storage medium, computer program, and computer readable medium are not computer readable medium.

5. Claims 9-12,17-19,30-32, and 34-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 9-12,17-19,30-32, and 34-36 are single means claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pearce et al. (6,804,254) is cited to show a system which is considered pertinent to the claimed invention.

7. Claims 13-16 and 45-46 are allowed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T TON whose telephone number is 571-272-3171. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Ton

DANG TON
PRIMARY EXAMINER